

Abstract of the Disclosure

**HIGH-SPEED ANALOG-TO-DIGITAL CONVERSION WITH
IMPROVED ROBUSTNESS TO TIMING UNCERTAINTY**

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A method and system using the principle of generalized maximum likelihood estimation to resolve sample timing uncertainties that are associated with the decoding of communication signals. By using generalized maximum likelihood estimation, sample timing uncertainty can be resolved by taking multiple samples of
10 the received signal within a symbol period and determining which sample best corresponds to the optimal sample timing. The sample which best corresponds to the optimal sample timing can be determined from a timing index which can be calculated from ambiguity indicators that are based on the samples of the received signal.

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K&S Docket No. 07982.105019